

UNIVERSITY OF MASSACHUSETTS

General Information Bulletin



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Adventure in Higher Learning **GENERAL INFORMATION BULLETIN**

University of Massachusetts



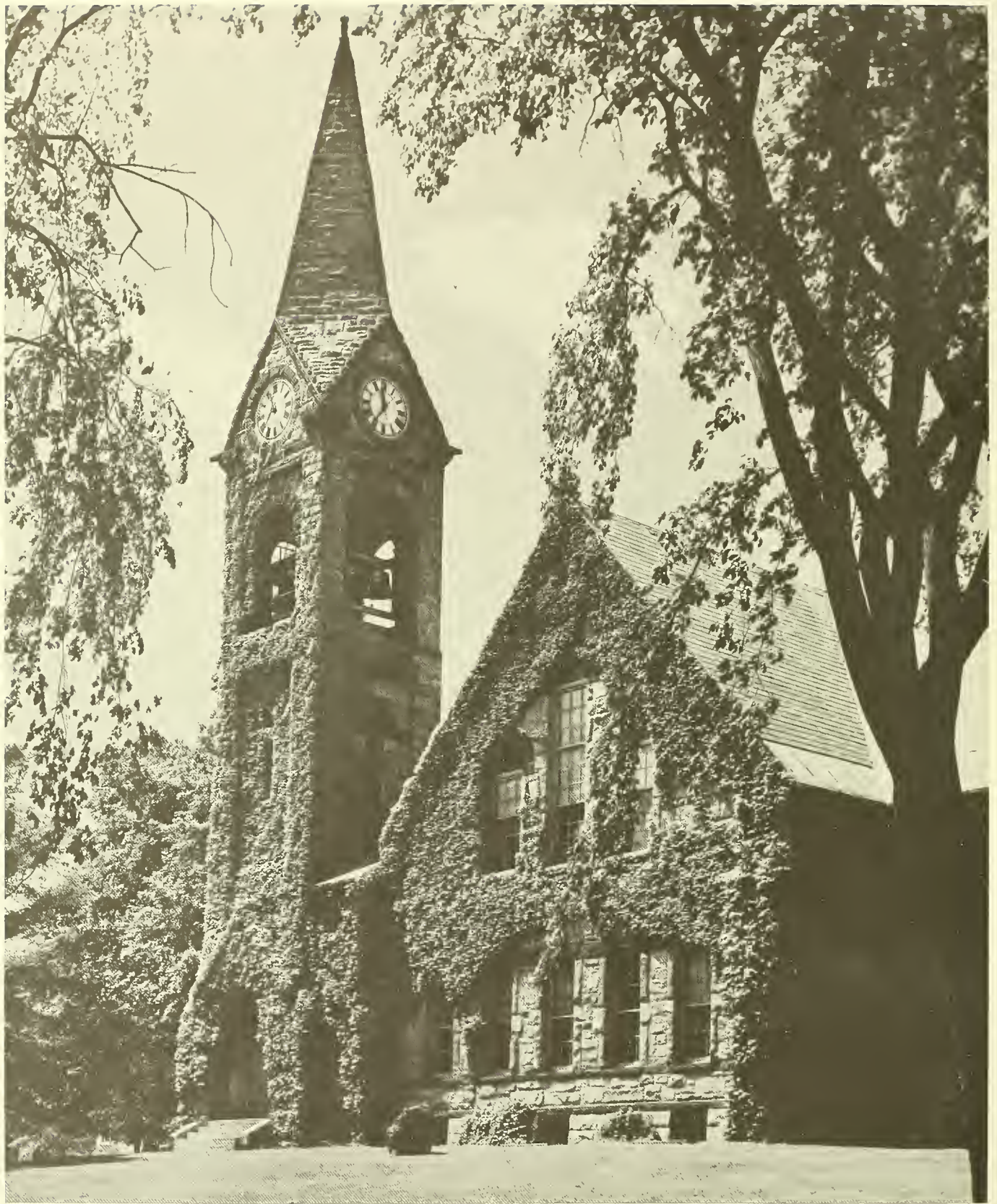


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A WORD FROM THE PRESIDENT

In the pages that follow, you will find the University of Massachusetts described as "a place to live, to work, to learn." The University is, in other words, not only a place — but an opportunity. And the emphasis is on people, on teachers and students, on the men and women who contribute to and make our society what it is.

The full resources of the University are therefore always at the disposal of our students, whom we regard as the most important resource of all. And certainly if the young people we accept are to live, work and learn well, then we must be sure that they are *interested* and *dedicated people*, who will profitably and effectively participate in all that the University has to offer.

This is important, for the University itself is committed to serving national objectives in one of the most challenging eras of world history. We therefore see our students as integrally involved in helping our society to grow and to contribute in all significant ways to fulfilling these objectives.

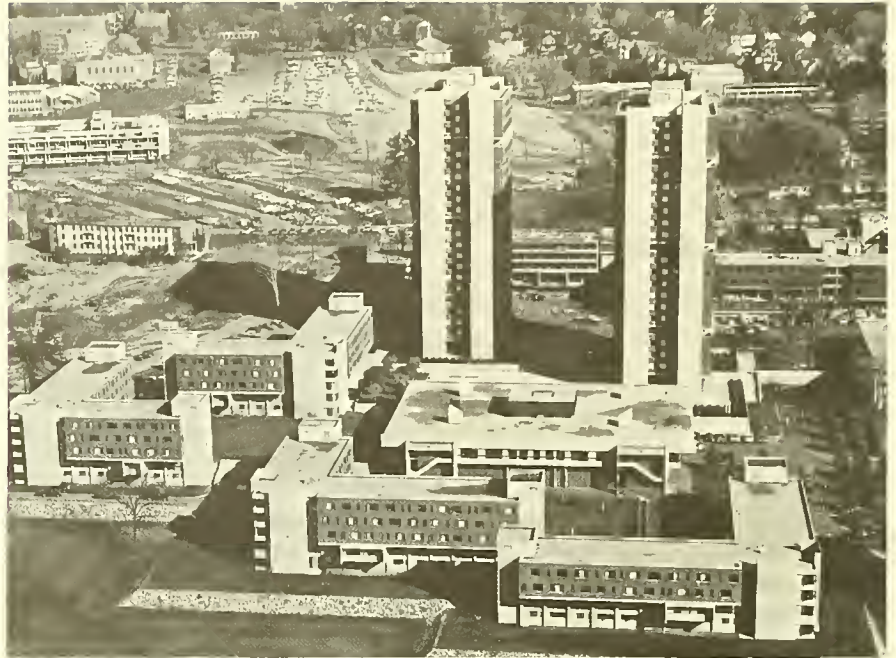
In the process, students can derive enjoyment and satisfaction in the largest measure. The University has rich opportunities both in its curricular and extracurricular activities. Those who wisely balance their programs, who place studies first and carefully select other activities, can experience the "connection between knowledge and the zest of life" that is reflected in the program of all true universities.

Cordially,

A handwritten signature in cursive script that reads "John W. Lederle".

JOHN W. LEDERLE
PRESIDENT

THE UNIVERSITY



The University of Massachusetts is the state university of the Commonwealth, founded in 1863 under provisions of the Morrill Land Grant Act passed by the United States Congress one year earlier.

The University is a member of the great community of Land Grant colleges and state universities serving the nation as principal resources of higher education. Incorporated as the Massachusetts Agricultural College in April, 1863, the institution was opened to a handful of students in 1867. Rooted in the liberal arts tradition (its early presidents were graduates of such colleges as Dartmouth, Williams, Amherst, and Harvard), it has grown steadily from the four teachers and four wooden buildings available for its opening session. Reflecting the broadening interests of its students, the General Court of the Commonwealth of Massachusetts authorized a second name, Massachusetts State College, in April, 1931. Sixteen years later, in May, 1947, the institution became the University of Massachusetts.

Situated in one of the most picturesque sections of the state, the University on its Amherst campus joins with its academic neighbors — Amherst, Smith, and Mount Holyoke Colleges, and the newly-formed Hampshire College — in maintaining the educational and cultural activity associated with this beautiful Connecticut Valley region. The University's campus in Amherst consists of approximately 1,100 acres of land and 110 buildings. These structures include classroom and laboratory facilities as well as residence halls and other units.

To augment the Commonwealth's facilities at the university level, the University opened a commuting institution to its first freshman class in downtown Boston in September, 1965. The new facilities offer educational programs comparable in quality to those available at Amherst. It is planned to expand the offerings by one class each year, until a four-year program is achieved in 1968-69. Classes are offered during the day, late afternoon and evening.

[6] The total resources of the University are dedicated to giving all qualified students full opportunities to develop their capabilities for service in a growing society.

ADMISSION – HOW TO GET READY

Applications for admission for the Amherst campus may be obtained by writing to the Admissions Office in Amherst. Applications for the Boston campus may be obtained by writing to the Admissions Office in Boston.

When to File

High School seniors are advised to file their applications in the fall of their senior year. Unless applicants have superior records, they should not submit applications until the first set of marks are recorded in the fall.

Deadline Dates

Applications must be *received* and *complete* no later than:

In-State — March 1.

Out-of-State — February 1.

Foreign — February 1.

Tests Required

The Scholastic Aptitude Test may be taken on any of the scheduled dates, although the December testing date is preferred. The March and May dates are too late for seniors, but are appropriate for juniors taking the test for guidance purposes.

Amherst campus applicants for admission are required to submit results of the Scholastic Aptitude Tests given by the College Entrance Examination Board. In addition, three College Board Achievement tests, one of which must be English Composition, are required of every applicant whose class rank places him below the top third of his class.

All *Boston campus applicants* must submit SAT's and three Achievement tests including English Composition.

All *postgraduate, out-of-state students*, and *foreign students* are required to submit SAT's and three Achievement tests including English Composition.

ALL COLLEGE BOARD TEST REPORTS MUST BE SENT DIRECTLY TO THE UNIVERSITY FROM THE COLLEGE BOARD TESTING CENTER. Be certain that you request to have your scores sent to the campus to which you applied. Be certain to give the correct College Board number for your choice of campus. No action can be taken on an application until official scores have been received.

Campus Visitations

Amherst: We recognize the importance of a first hand acquaintance with the colleges you may be considering, and we hope that you will find it possible to visit our campus for your own information and satisfaction. *An interview is, however, not part of the admissions procedure.* It is physically impossible for the admissions staff to interview all applicants; therefore, personal conferences will be scheduled only if the candidate or his guidance counselor has a question which cannot be readily resolved by correspondence.

At the Amherst campus, group interviews are scheduled for in-state candidates at 10:00 a.m., and at 11:00 a.m. for non-residents on Saturdays, excluding holiday weekends, during the academic year. Guided tours will be available at the conclusion of each group interview.

Boston: Applicants are welcome to visit the Boston Campus on most Tuesdays and Thursdays at 3:00 p.m. An interview is, however, not normally part of the admission procedure.

Notification of Decision

In most cases applicants will be notified by mid-April of the action taken on their applications. Applicants who present strong academic records, enthusiastic school recommendations, and satisfactory College Board scores will receive earlier notification. This early notification should reassure the well-qualified applicant regarding college entrance and enable the student who has selected the University as his choice of college to settle his plans. Applicants accepted at an early date, however, are under no pressure to make a final decision in regard to their choice of college before the Candidate's Reply Date. In this way the burden of multiple applications on high school guidance counselors and college admissions officers may be lessened.

Veterans

Veterans must submit a regular freshman or transfer application, whichever is appropriate, and submit results of Scholastic Aptitude Tests taken within the past two years.

Transfers

A limited number of transfers from approved colleges may be admitted. Since applicants for such transfer exceed the number that can be accepted, they are placed on a competitive basis. Ratings will be based upon high school and college records and on the College Board Scholastic Aptitude Test, which is required of all transfers. Any student who has been previously enrolled in a college is considered a transfer and must file a transfer application form. Applicants for transfer should write to the Admissions Office for a transfer application. The University does consider for transfer only those applicants who have completed at least two years of satisfactory work at another institution. At least 45 semester credits taken in residence at the University are required of all transfers who are candidates for the bachelor's degree.

VETERANS AFFAIRS

The Veterans Coordinator is a staff member of the Placement and Financial Aid Services Office. All veterans affairs should clear through Placement and Financial Aid Services.

Eligible dependents of veterans who are entering the University for the first time should present a Certificate of Eligibility at registration. This may be obtained from the nearest Veterans Administration office. Board, room, and fees must be paid in advance whether the student is enrolled under the G.I. Bill or not.

Veterans' dependents who are transferring to the University from another institution or who have done summer work at another institution should present a supplemental Certificate of Eligibility at registration. This may be obtained through the veterans office at the institution last attended.

PHYSICAL EXAMINATION

Physical examination by their personal physician is required of all entering freshmen, re-entering students and all students participating in athletics. Physical report forms for this examination will be mailed to each student with the bill for the first semester and must be completed and returned to the University Health Services 10 days before the opening of the semester. Evidence of a *successful* smallpox vaccination and active tetanus immunization are required.



PREPARATORY STUDIES

The applicant's secondary school preparation must indicate the capacity to handle the quality of scholastic work which the University has established as its standard of achievement. A prerequisite for admission is the satisfactory completion of a four year high school course or its equivalent. A minimum of sixteen units should be offered, distributed according to the following recommendations:

English	4
College Preparatory Mathematics	3*
Foreign Language (2 years of one language)	2
U.S. History	1
Laboratory Science	1

The minimum of five other units should be offered in the areas of mathematics, science, foreign language, history and social studies, or free electives (not more than four units). These free electives afford the student the opportunity of electing other high school offerings, while at the same time covering the fundamental requirements of college preparatory work. Free electives might include, for example, music, art, typewriting, aeronautics, agriculture, home economics, etc. Students planning to major in physical sciences or mathematics should, if possible, offer two years of algebra, one of plane geometry, and one-half year of trigonometry. Preparation in analytical or solid geometry, chemistry, physics, and introductory calculus is also strongly recommended.

Students planning to pursue an engineering curriculum should offer two years of algebra, one of plane geometry, and one-half year each of trigonometry and solid geometry. Chemistry and physics are also advised. Those deficient in the mathematics requirements should plan to make it up during the summer prior to entrance or should expect to take five years to complete the college course.

Several of the University's schools and colleges do stipulate intermediate language proficiency as a graduation requirement. Students planning to major in these areas will find at least three years of secondary school language preparation advantageous. (See appropriate sections of this bulletin.)

Exceptional candidates whose secondary preparation is not within the framework of the above recommendations may be considered for admission. Their suitability for admission will be based on their other intellectual aptitudes and achievements and their readiness for the University curriculum.

WHAT IT COSTS TO ATTEND

AMHERST CAMPUS

Expenses vary from approximately \$1,500 to \$1,600 per year for the normally economical student. First year costs are usually greater than those of the other three years and there is less opportunity for earnings. Therefore, a student is advised to have a definite plan for meeting the expenses of the first year before entering. The following estimate of a year's expenses, based chiefly upon last year's costs, includes only those items which are strictly University-related and does not include amounts for clothing, laundry, travel, etc. These costs vary slightly from year to year. Tuition for residents of Massachusetts is \$200 per year and for others \$600. The University reserves the right to change any fees without advance notice.

	<i>Normal</i>
Tuition (residents of Massachusetts)	\$ 200.00
Room rent in college residence hall or private home (approx.)	350.00
Telephone (where available)	25.00
Board at college dining halls	610.00*
Athletic Fee	30.00
Physical Education Equipment Fee	10.00
Student Union Fee	30.00
Student Activity Tax (approx.)	30.00
Student Health Services Fee	50.00
Student Medical/Surgical Insurance, 12 months' coverage (optional)	25.00
Books, stationery, laboratory and other supplies (approx.)	200.00
Estimated total	\$1,560.00

INITIAL PAYMENT FOR FRESHMEN — Amherst

The initial payment for FIRST SEMESTER expenses required of freshmen at the time of fall registration is indicated below and is made up of the following items:

Tuition (residents of Massachusetts)	\$ 100.00
Room rent in college residence halls (approx.)	175.00
Telephone (where available)	12.50
Board at college dining halls	305.00*
Athletic Fee	15.00
Physical Education Equipment Fee (men only)	10.00
Student Union Fee	15.00
Student Activity Tax (approx.)	15.00
Student Health Services Fee	25.00
Student Medical/Surgical Insurance, 12 months' coverage (optional)	25.00
Books, stationery, laboratory and other supplies (approx.)	100.00
Estimated total	\$ 797.50

These are only approximate figures. A bill will be rendered to the parent of each student prior to the beginning of the semester.

BOSTON CAMPUS

The direct costs involved in attending the University of Massachusetts at Boston are appreciably lower than those attending the University of Massachusetts at Amherst. The major difference is the cost for room and board; since the University of Massachusetts at Boston was created as a non-residential college, its students live and board at home or under other non-college arrangements.

Certain other expenses which are obligatory at the University of Massachusetts at Amherst are not required for the University of Massachusetts at Boston students.

The following schedule of tuition and fees includes only those items which are strictly college and does not include amounts for clothing, laundry, travel, etc.

Expenditures for books, stationery, and other supplies is estimated to be \$100 for all full-time students.

SCHEDULE OF ANNUAL TUITION AND FEES — Boston

	<i>Full-time</i>	<i>Part-time</i>
Tuition (citizens of Massachusetts)	\$200	\$100
Tuition (not citizens of Massachusetts)	600	300
Student Activities Fee	30	20
Student Medical/Surgical Insurance, 12 months' coverage (optional)	30	30
Student Health Fee	20	10

The initial payment for first semester expenses, required of freshmen at the time of fall registration, is \$155 for students who are legal residents of Massachusetts and \$355 for non-resident students.

RESIDENCE STATUS

As a state institution the University offers a low rate of tuition to all students entering from the Commonwealth. Eligibility for admission under the low residential rate is determined in accordance with the following policy established by the Board of Trustees.

A student must present evidence satisfactory to the Treasurer of the University that his domicile is in the Commonwealth of Massachusetts in order to be considered eligible to register in the University as a resident student. This means that he must have established a "bona fide" residence in the Commonwealth with the intention of continuing to maintain it as such.

The domicile of a minor shall follow that of the parents unless such minor has been emancipated. In case of emancipation the student, in addition to the requirements of these regulations, respecting residence, shall present satisfactory proof respecting emancipation. Minors under guardianship shall be required to present, in addition to the certification of the domicile of the guardian, satisfactory documentary evidence of the appointment of the guardian. No student shall be considered to have gained residence by reason of his attendance in the University nor shall a student lose residential preference during his continuous attendance at the University. The residence of a wife shall follow that of the husband.

The prescribed form of application for classification as to residence status must be executed by each student. Misrepresentation of facts in order to evade the payment of out-of-state tuition shall be considered sufficient cause for suspension or permanent exclusion from the University. Discretion to adjust individual cases within the spirit of these rules is lodged with the President of the University.

SUMMER ORIENTATION FEE

Members of the incoming freshman class attending the summer orientation program on the Amherst campus will pay a non-refundable fee of \$15 to cover the cost of meals, housing, testing and counseling. Likewise, incoming freshmen accepted at University of Massachusetts at Boston will pay a non-refundable fee of \$15 to cover the cost of testing and counseling and other orientation programs.

PAYMENT DUE DATES

In accordance with University policy, all charges for tuition, fees, board and room rent in University residences are due and payable approximately one month prior to the date of registration of each semester. Bills will be rendered in advance and payment may best be made by mail. Students may not register until all University charges are paid.

A WORD ABOUT FINANCIAL AID

Scholarships, loans, grants, and part-time employment are available for needy and deserving students. A limited number of such awards are available to entering freshmen who have made outstanding records in high school. Applicants for financial aid must file the Parent's Confidential Statement prepared with the College Scholarship Service when the Admissions Application is sent, or no later than March 1 of the admission year. Students may also apply for certain kinds of loans, including those available under the National Defense Student Loan Program, University loans (after the first semester of the freshman year), and the Higher Education Loan Plan (available through commercial banks). Also, students may engage in part-time work after the completion of the first semester of their freshman year. Information about each of these programs may be obtained by writing to the Director of Placement and Financial Aid Services. Veterans and their dependents who are eligible for benefits may also apply to this office for information.

All of these benefits are available for students at the Boston campus where application should be made to the office of the Dean of Student Affairs.

A PLACE TO LIVE, TO WORK, TO LEARN



How can I make the most of my college career? Every student asks this question just before the start of his freshman year. Specific answers usually wait until the student is actually in college where teachers and advisers help him to decide on the major course of study he should pursue. Often, of course, a student has already made a decision about his major, and if the decision is based on a sound assessment of aptitudes and abilities, this is all to the good.

But even for students who are sure about what they want to study in college, the question is still very important. The danger in approaching college work lies in the assumption that this is, as with many other activities, "just a routine." As a student reads the general catalog, he finds rules, regulations, requirements, and prescribed courses of study. All these tend to make him feel that the curriculum is indeed just a routine for getting enough credits to graduate.

For many students this is certainly true. But for the wise student, the word *routine* is supplanted by the word *adventure*. The rules and regulations are not thereby eliminated, for every college must have the means of order and stability by which to achieve its basic objectives to which the various groups of required courses lead. But the good student recognizes that he need not work merely to satisfy *minimal* requirements; he can do much more. If he learns early that thought is not locked within the four walls of a classroom, if he is alive with interest, if he

realizes that his four years in college will be the best he will ever have for stocking his mind and exercising his imagination, then his prescribed course of study will become a springboard to a fascinating realm of knowledge and ideas that only he himself can attain.

The following paragraphs, therefore, are simply intended to show what the University can offer a student, what it requires of him, and what he must do to fulfill these minimal obligations. Beyond these basic offerings and requirements lies the real adventure — the adventure in higher learning.

A YEAR-ROUND OPERATION

The University conducts its program on virtually a year-round basis. The regular two semesters of the academic schedule are supplemented by a two-term summer session in which a student can earn nearly the equivalent of a full semester's work. Combining the work of the regular academic year with a complete schedule of courses in the summer session, students can finish their college careers in three years instead of four. The summer session is open to all freshmen who wish to begin their college education immediately following graduation from high school.

THE ACADEMIC PROGRAM

The University consists of two main divisions; the first including the various undergraduate curricula, and the second, the Graduate School. Instruction in the undergraduate program is assigned to the College of Agriculture, the College of Arts and Sciences, the Schools of Business Administration, Education, Engineering, Home Economics, Nursing, and Physical Education, and the Department of Public Health. A qualified student may enter any one of these units and work toward the appropriate bachelor's degree, as described on Page 17. The total program is built around a core of studies designed to provide a sound general background. Beyond this, the student elects a program within a particular branch of learning in order to prepare for advanced study in that field or for a career in one of the professions. Offerings in the various branches range from accounting to zoology, and a student electing any major course of study has opportunities for a comprehensive education in the four-year program. Descriptions of the courses of study offered in each of the undergraduate branches can be found in the section beginning on Page 18.

THE PRELIMINARIES: FRESHMEN ORIENTATION

All students entering as freshmen must attend a three-day orientation program at a specified time during the summer prior to entrance. The program consists of testing, counseling, and pre-registration for courses to be taken during the coming semester. Guidance and placement tests are given and scored, and each student is assigned a faculty adviser who will help in the selection of courses and planning of a class schedule. On the final day of each of these periods, a special program is held for parents so that they may learn about the student's proposed courses and schedule for the fall semester, the results of the testing sessions, and the facilities and opportunities available at the University.

GENERAL UNIVERSITY SERVICES

The University is a community of individuals working toward a common goal — the acquisition and dissemination of knowledge. As a community, therefore, the institution has all of the adjunct resources needed to further that goal and to provide for the general well-being of the community's members.

Thus, the University maintains an extensive library system, both through the University Library and the 30 departmental and laboratory libraries. In addition, the University is a participating member in the Hampshire Inter-Library Center, housed at the University and containing journals, documents and reference sets for use in study and research. The Center is jointly operated by Amherst, Smith, and Mount Holyoke Colleges and the University under the Four College Co-operation Program engaged in by the four institutions.

Concerned as it is with the spiritual needs of the educated man, the University gives support to the religious life of its students in various ways. It affords the use of facilities for student groups of all faiths, and it honors the work of the Campus Religious Council which provides a cooperative relationship among religious groups. Chaplains are assigned to campus by the various faiths, and students are urged to meet with their own chaplain upon coming to the campus.

The University also maintains a Counseling and Guidance Office staffed by highly trained and skilled counselors. This service is available to all students who desire to learn more about themselves and their aptitudes. This office, besides offering specialized advising in addition to that normally given in academic departments, offers courses in reading and study skills in conjunction with the School of Education.

The University Health Services housed in one of the newest buildings on campus, are concerned with the total health of individuals and groups, as reflected in the need for complete physical, mental and social well-being. The new infirmary contains a fully-equipped out-patient department, X-ray and laboratory resources, and physiotherapy facilities. The Health Services staff of physicians, technicians and nurses is devoted to promoting good physical and mental health, conditions of safety, and other factors affecting the health of students in the campus community. In addition, the University maintains a Speech and Hearing Center to assist students and others with speech and hearing problems.

GRADING SYSTEM

Enrollment in and graduation from the University involve both quality and quantity of work. The quantity of work is measured by the credits obtained by successful completion of courses. The quality of work is measured by grades.

Each grade is equated with a quality point as noted below. The quality point average required for continued enrollment and for graduation is set by the Faculty Senate. At present the graduation requirement is a cumulative average of 1.80.

Grades are reported according to a letter system, as follows: A—Excellent, B—Good, C—Average, D—Passing (but not satisfactory), F—Failure, and Inc.—Incomplete. Quality points per semester hour are assigned as follows: A, 4; B, 3; C, 2; D, 1; and F, 0. To compute the semester grade point average, as well as the cumulative average, the total points earned are divided by the total credits carried. Any student whose semester quality point average falls below the cumulative requirement is warned of his status by the Registrar and informed of the rules governing dismissal. Students who achieve high averages are placed in one of three honors groups each semester, as follows: First Honors: 3.8 or higher; Second Honors: 3.4 to 3.7 inclusive; and Third Honors: 3.0 to 3.3 inclusive.

ADVISORY SYSTEM

All freshmen select a tentative educational objective and are assigned a faculty adviser within that academic area.

In the second semester of the freshman year, each student is given an opportunity to change to a new department or to remain in his current department. In succeeding semesters, students may change to another major department by execution of a Major Change Card (available in the Registrar's Office).

It is the function of his adviser to help the student in adjusting himself to the work and life of the University. Academic progress reports issued by the Registrar's Office are sent to the advisers periodically, and the students are expected to report to their advisers from time to time to discuss their academic standing.

The University also forwards reports of academic standing to the parents. Both students and parents are encouraged to consult with the adviser whenever there are problems regarding studies or personal adjustments to college life.

PROGRAMS FOR SUPERIOR STUDENTS

The University regularly provides superior students with challenging educational programs extending from the freshman through the senior year. These include Advanced Placement and Special Honors Programs.

Many entering students are able to achieve advanced standing and credit for college-level courses successfully completed in their secondary schools as part of the College Entrance Examination Board Advanced Placement Program or an equivalent. The University also administers a number of its own advanced placement tests. A student who demonstrates he is proficient in a basic college subject may by-pass the beginning course and go on to advanced work in the subject. Also, up to thirty semester hours of credit may be granted students of high standing who can fulfill the requirements of some of their courses through independent study.

The major feature of the program for superior students is the honors curriculum available to all who qualify. Freshmen are eligible for the Honors Colloquium program conducted for the first three undergraduate classes. The Senior Honors Program recognizes merit and gives highly qualified students time and opportunity for independent study under closer, more personal direction than is ordinarily provided in the University curriculum. Students who complete their work satisfactorily are eligible for graduation with honors.

STUDENT HOUSING

It is the policy of the Board of Trustees that all men and women undergraduate students shall be housed in campus residence halls and be required to eat at University dining halls unless given permission to commute from their parents' home or to live at sorority or fraternity houses. Sororities and fraternities may furnish regular board to members up to the approved capacity for each house.

Most residence hall rooms are double and all are furnished with beds, mattresses, desks, chairs, mirrors, and a chest of drawers. In addition, many have desk lamps, waste baskets and draperies. Students care for their own rooms and are responsible for any damage. Residence halls are open for occupancy on the day preceding registration. Students assigned to residence hall rooms will be responsible for the room rent of the entire semester which is not refundable. Room rental charges do not include the several regular school vacation periods during which times the University reserves the right to change room assignments. The University reserves the right to utilize student rooms during vacations for conferences and other groups.

Within the structures of the University are two experimental Residential Colleges: Orchard Hill, opened in 1964, and Southwest, opened in 1965. Both endeavor to increase the academic atmosphere of residences by having regular classes in the building, and by encouraging extra activities such as play-readings, lectures, and panel discussions. Faculty members serve in planning and implementing programs initiated by the students; close faculty-student relations help maintain a quiet, private, and serious place of study.

The University owns and operates the University Apartments for faculty and staff and the Lincoln Apartments for junior faculty and married students. Apartments are unfurnished with the exception of kitchen units which contain an electric range and refrigerator. Apartments are assigned as of the date of availability. Further housing information and/or applications may be obtained from the University Housing Office.

MOTOR VEHICLE REGULATIONS

Driving to and from classes is not permitted, and only students in the following categories will normally be authorized to possess and operate a motor vehicle in the Amherst area:

- a. Commuting students who live over one mile from the center of campus during the academic year.

- b. Students whose locomotive capability is so seriously impaired that they would be prevented from meeting regular class appointments without motor vehicle assistance.
- c. Married students residing with spouse.
- d. Students over 25 years of age.
- e. Members of the senior class.
- f. At the discretion of the Dean of Men or Dean of Women, students presenting extenuating circumstances in writing.

All motor vehicles must be registered with the University Police. In advance of arrival on campus, eligible students should obtain from the University Police Department copies of the University regulations pertaining to possession, registration and operation of motor vehicles.

STUDENT ORGANIZATIONS

Participation in extracurricular activities offers opportunities for furthering the broader objectives of a college experience. The knowledge, skills and judgment developed in the classroom can be tested and refined through use in the organizational setting. Thus, more than fifty professional clubs exist on campus as a means of stimulating vocational interest through close contact with members of the teaching staff and representatives of the professions. Student government offers a forum for debate on matters of importance to the entire University community. For those interested in communications, there are several campus publications as well as an FM radio station. Experience in music and drama is available in a number of forms.

Participation in one or more of the 275 extra-curricular recognized student organizations can be a profitable means of fostering maturity and general enrichment in those students who wish to take optimum advantage of all that the University can offer. In encouraging participation in these activities, the University asks only that students plan their time well, in order that they may profit as much as possible from a total University program devoted, first and foremost, to academic studies.

Recognition for outstanding achievement in this area is given at an annual Student Leaders Night held in the spring. An office devoted to administering and assisting in the conduct of student activities is located in the Student Union. Detailed information about student organizations may be obtained by contacting the Director of Student Activities.

PLACEMENT AND FINANCIAL AID SERVICES

The University maintains an Office of Placement and Financial Aid Services whose responsibilities include vocational and financial counseling and the administration of the affairs involved in aiding students to seek appropriate positions and careers; the granting of and information concerning loans and scholarships, including the various Federally sponsored financial aid programs; the assignment of part-time work; the coordination of veterans' affairs; and the dissemination of information relative to military service. While providing vocational and career counseling for all undergraduates, the emphasis is on aid to seniors in planning their future following graduation and providing them with the best means for finding permanent employment. The office arranges for employers from business, industry, schools, and other areas to visit the campus to interview prospective graduates during the school year.

Cumulative student personnel records; occupational information and industrial literature libraries; preparation of credentials including personal resumes and recommendations, coupled with counseling and guidance, are provided to aid seniors and registered graduates in accomplishing their career objectives.

THE PROGRAM AND ITS OPPORTUNITIES



The University offers four-year undergraduate curricula leading to the following degrees: Bachelor of Science, Bachelor of Arts, Bachelor of Science in Chemical, Civil, Electrical, Industrial and Mechanical Engineering, and Bachelor of Business Administration. Work toward these degrees is carried on in the College of Agriculture, the College of Arts and Sciences, the Schools of Business Administration, Education, Engineering, Home Economics, Nursing, and Physical Education, and the Department of Public Health. Special arrangements are made for some graduates of county agricultural schools and of agricultural departments of certain high schools to complete the college course with majors in agriculture and horticulture. Upon completion of their course, these students are granted the degree of Bachelor of Vocational Agriculture.

The aim of the four-year course is to give the student as high a degree of proficiency in a particular branch of learning as possible without sacrificing the breadth, knowledge and general training which should characterize a well-rounded college education. Under this philosophy, the University has made recognized contributions, through its graduates, to the life and culture of America. University alumni hold positions in government, education, business, science and engineering, the arts, medicine, law, and many other professions. With rising enrollments, the University is educating ever greater numbers of young men and women for significant careers and important contributions to American society.

The following pages give some indication of the variety of such opportunities open to students who are accepted for admission. Descriptions of curricula are given in brief and general terms so that prospective applicants may become acquainted quickly with the entire range of offerings. Graduation requirements for each curriculum have been omitted, principally because a student admitted to the University will have ample opportunity to acquaint himself with such requirements after he has arrived on campus. Courses required in the freshman year, on the other hand, are included in the section beginning on Page 38. Further information on various phases of the major courses of study may be obtained from the Deans of the Colleges and Schools or from the Registrar. Information about other aspects of the University program may be obtained from the appropriate offices listed inside the back cover.

COLLEGE OF AGRICULTURE

Arless A. Spielman, Dean
Fred P. Jeffrey, Associate Dean
Stockbridge Hall

The College of Agriculture offers a broad general education with specific training in a specialized area. Upon the completion of the requirements for the Bachelor of Science degree, the student will have devoted about one-quarter of his time to pure science, one-quarter to social and humanistic studies, and about one-half to applied science and technology.

Undergraduate students in the College of Agriculture are prepared for living and for earning a living. They are exposed to an inter-disciplinary, systems-oriented, problem-solving atmosphere that has been developed to a high degree by the College of Agriculture, the oldest college of the University.

All departments of the College offer graduate degrees in a discipline or professional field.

STOCKBRIDGE SCHOOL. For those students interested in a two-year program in the food and agricultural industries, the University provides offerings in the Stockbridge School. A separate bulletin describes these offerings in detail.

AGRICULTURAL AND FOOD ECONOMICS. The department's program is designed to: (1) prepare the students for employment in executive positions with firms in the food industry or in agriculture; or for administrative positions with government agencies concerned with natural resources, agriculture, or food problems; or (2) to give the essential undergraduate preparation for a career as a professional economist working in research, teaching, or consulting work on natural resource problems, or in agriculture or the food industry. Training in the analytical tools of economics for problem solving and decision making is stressed.

AGRICULTURAL ENGINEERING. This professional field includes engineering activities related to the design, development and use of mechanical and electrical equipment; structures; and soil and water control systems for the production, processing and preservation of agricultural products and the improvement of rural living. Agricultural engineers are employed by a variety of industries and organizations for research, development, teaching, and promotional activities.

ANIMAL SCIENCES AND PRE-VETERINARY. The curriculum in the Animal Sciences, including poultry, is designed to provide fundamental training and knowledge in the comparative nutrition, physiology, genetics, and management of various classes of livestock and to understand the role of animal production in the national and world economy. Options emphasizing commercial animal production are supported by electives in agricultural economics, agricultural engineering, and business administration. Students interested in graduate work in such specialized areas of the animal sciences as nutrition, physiology or genetics should elect programs with special emphasis on the basic sciences. Pre-veterinary students major in Animal Science as freshmen.

ENTOMOLOGY. Courses in Entomology acquaint students with all phases of insects and insect control, including apiculture and medical entomology. Trained entomologists find positions in public service and industry, such as teaching at all levels; research, quarantine and regulatory work in state or Federal service, various roles in public health and pest control activities; research, sales and public relations work in the agricultural chemicals industry; and apiculture.

ENVIRONMENTAL SCIENCES. Environmental sciences is concerned with the acquisition and application of knowledge on the effects of the chemical, physical and biological environment of soil, water and air upon organisms of significance to agriculture. Current programs of research in air pollution, soil and water pollution, food-plant biology, ornamental plant biology, and acarine population biology, offer students opportunity for enrichment through individual staff consultation and participation.



Problem analysis in a Park Administration course



A Forestry student "reads" aerial photographs stereoscopically as a step toward making a map



A Fisheries Biology major studies a fish scale, enlarged by projection, to determine the age of the fish

FOOD SCIENCE AND TECHNOLOGY. The curriculum in Food Science and Technology provides scientific and technological training in the principles concerned with the processing, preservation, and packaging of foods and food products. The student's training is directed to the application of modern science and technology to research and to the manufacturing and distribution of foods. Major fields open to graduates include: (1) product research and development; (2) food processing and packaging; (3) technological work and research in government, industry, and education; (4) advanced graduate study.

FORESTRY. The curriculum in Forestry concerns the biology and management of forests for the production of wood, water, wildlife, and opportunities for outdoor recreation. Integrated, multiple-purpose forest use is emphasized. The accredited program prepares graduates for employment with private industry, Federal and state agencies, conservation and planning organizations.

LANDSCAPE ARCHITECTURE. The Department of Landscape Architecture offers an undergraduate pre-professional curriculum in environmental design and a graduate professional program in landscape architecture.

PARK ADMINISTRATION. This program is designed to give the student a broad education in land use management emphasizing physical organization, development and administration of parks. It makes use of various phases of landscape architecture as a basic discipline, and stresses parks as a service to society. Graduates will find employment primarily with private, municipal, county, state or Federal park agencies; and park and recreation, conservation or natural resource organizations.

PLANT PATHOLOGY. Plant pathology is concerned with the nature and control of plant diseases caused by fungi, viruses, bacteria, nematodes, certain higher plants and unfavorable environmental conditions. Plant pathologists fill positions in public service and in industry, such as teaching at all levels; research in state, Federal, university, and industrial laboratories and experiment stations; and Extension Service through Federal, state and county organizations. They are also employed in quarantine and regulatory work, in various roles in plant disease control, and in sales and public relations work in agricultural chemical industries.

PLANT AND SOIL SCIENCES. A major in Plant and Soil Sciences permits specialization in agronomy, turf management, many areas of horticulture, and soil science. Emphasis is on courses in the basic sciences and those dealing with the principles of plant growth and response to the environment, thereby preparing students for a variety of careers in teaching, research, industry, business, marketing, production, sales, control and regulatory services with state and Federal agencies.

RESTAURANT AND HOTEL MANAGEMENT. The curriculum in Restaurant and Hotel Management is offered by the Department of Food Science and Technology. The program provides technical and professional courses for persons who plan a career in ownership, management, or sales in the hotel-motel, food service or related fields. Professional courses are balanced with a selection of courses in the arts and sciences which serve to broaden the students' interests and appreciations.

WILDLIFE AND FISHERIES BIOLOGY. Wildlife and Fisheries Biology is concerned with the acquiring and application of knowledge concerning terrestrial and aquatic animal populations which are of recreational or commercial value. This knowledge includes the dynamics of animal population and their responses to changes in environmental conditions, including changes incurred by land use and direct exploitation by man. A broad understanding of geology, forestry, soils, agriculture, botany, and zoology is required.

WOOD TECHNOLOGY. The program in Wood Technology emphasizes studies in the nature and properties of wood, the engineering and chemical technology of its manufacture into a variety of useful products, and the business aspects of industrial management and marketing. Graduates find employment in wood-processing firms and service-related industries, and in marketing and merchandising.

COLLEGE OF ARTS AND SCIENCES

I. Moyer Hunsberger, Dean

John M. Maki, Vice-Dean

Robert W. Wagner, Associate Dean

Gerald W. McFarland, Assistant Dean

H. Duncan Rollason, Assistant Dean

Severt J. Savereid, Assistant Dean

A university is a community dedicated to helping man acquire and extend knowledge and put it responsibly and maturely to use. To produce liberally educated people is the specific task of a college of arts and sciences. It encourages its members to seek mastery over language (their own and one or more foreign tongues); to gain insight into the cultures which these languages express; to experience the values of formal thought; to acquaint themselves with disciplines which deal with animate and inanimate nature; to be aware of the methods and results of the sciences which investigate man, his institutions, and his culture; to comprehend the relation of man's ideals and aspirations to his experience as interpreted by the humanities. The college encourages its members to learn the importance of justifying their beliefs and actions, examining the consequences thereof, and liberating themselves from the bondage of uncritical opinion. Finally, it wishes them to apply and extend knowledge. For these latter purposes, especially, the college must see that its members devote intensive study to particular areas of knowledge. All instrumentalities of the college — facilities, curriculum, influence over student life, choice and support of the faculty — are directed to these ends.

All departments of the college offer work at the graduate level and each of the major programs mentioned below provides one or more options which can be the basis of graduate study in the discipline. Graduate study is nearly mandatory for a professional career in many fields.

A typical student's program for four years will contain about 45% to 50% general education, 35% to 45% in the major and related fields, and 5% to 20% electives which may be used for a special program such as the reserve officer commission or the teacher certification courses. (See Secondary School Teaching, Page 27.)

A Bachelor of Arts degree may be earned by a student majoring in any department of the college; students majoring in mathematics, psychology, or one of the natural sciences may earn a Bachelor of Science degree. A Bachelor of Fine Arts or a Bachelor of Music may be earned by students who present a satisfactory portfolio or audition for admission to these degree programs.

A student may choose his major on entrance or at any time during his first three semesters; he must choose one before the end of his sophomore year. When he declares a major, he is assigned a faculty adviser for that major; each major program has a chief adviser who coordinates that major program. Prior to declaring a major, the student will obtain academic advice and information from the faculty members and staff of the College of Arts and Sciences Information and Advising Center (CASIAC), which is supervised by the Assistant and Associate Deans.





Humanities

The *Humanities* include the core of the traditional liberal education and offer a variety of major programs.

ENGLISH provides for concentration on British or American literature or in drama, poetry, prose or creative writing with supplementary work in comparative literature.

JOURNALISTIC STUDIES combines training in writing with concentration in a discipline such as economics, government, or literature.

HISTORY offers concentrated study in the European, American, or Latin American areas with a broad spectrum of supporting courses.

FOREIGN LANGUAGES AND LITERATURE offer majors and instruction as listed below with supporting work in comparative literature.

Major Programs

CLASSICS*
FRENCH
GERMAN
RUSSIAN
SPANISH

Instruction only

CHINESE
DANISH
ITALIAN
JAPANESE
POLISH
PORTUGUESE
SWEDISH

PHILOSOPHY offers concentration in either classical or contemporary philosophies.

SPEECH offers concentration in rhetoric and communication as well as the theater program and training in speech and hearing therapy.

The Fine and Performing Arts

There are major programs in ART HISTORY and MUSICOLOGY and others which emphasize performance and creativity:

ART — Ceramics, drawing, painting, print making, and sculpture in both the B.A. and B.F.A. programs.

MUSIC — Instrumental and vocal; individual and group; theory and composition in both the B.A. and B.M. programs.

THEATER — Acting, directing, and technical problems.



Individual instrumental instruction



Investigation of three dimensional forms

Social and Behavioral Sciences

The *Social and Behavioral Sciences* offer major programs in:

ANTHROPOLOGY including work in archaeology and the ethnography of various areas of the world.

ECONOMICS with concentrations in economic theory, business applications, and governmental controls.

GOVERNMENT with concentrations in political theory, politics, international relations, and public administration.

PSYCHOLOGY with concentrations in testing and guidance, child welfare and social work, or in clinical psychology.

SOCIOLOGY with concentrations in population problems, sociological theory, and in preparation for social work.

Pre-Dental Pre-Medical Pre-Veterinary

The Pre-Medical Advisory Committee, composed of twelve faculty members, supervises programs of students designated as PRE-DENTAL, PRE-MEDICAL, or PRE-VETERINARY majors. A student applies to the committee for admission to these major programs during his sophomore year and, if admitted, completes a program of concentration in some field, not necessarily a science, along with a few courses specifically required by the professional school. Some professional schools admit students after only three years of college; such students may request permission to use work in the professional school to complete the requirements for a bachelor's degree.

Mathematics

The *Mathematics* major program, though centered in pure mathematics, may include extensive supporting work in statistics, computer science, engineering or science.

Natural Sciences

The *Natural Sciences* offer programs leading either to the Bachelor of Arts degree or, with more extensive study in science, to the Bachelor of Science degree. Vocational opportunities available to those with only a bachelor's degree are usually limited to secondary school teaching and positions as laboratory technicians or research assistants.

Physical Sciences

ASTRONOMY
BIOCHEMISTRY
CHEMISTRY
GEOLOGY
PHYSICS

Biological Sciences

BOTANY
MICROBIOLOGY
ZOOLOGY

Interdepartmental Programs

These three programs are not majors but consist of a program of unified studies which can supplement any one of several majors. Each program has a chairman and a faculty committee.

ASIAN STUDIES
COMPARATIVE LITERATURE
LATIN AMERICAN STUDIES



SCHOOL OF BUSINESS ADMINISTRATION

Himy B. Kirshen, Dean

John T. Conlon, Associate Dean

Nelson Pion, Assistant Dean

School of Business
Administration Building

The School of Business Administration prepares students to take advantage of important economic opportunities and eventually to assume positions of responsibility in business. The educational program is directed toward the broad aspects of business, encouraging high standards of ethical conduct, broad social responsibilities and the development of competence in courses of study of the student's interest, aptitude and choice.

The first two years emphasize general education by providing fundamental courses in the humanities, mathematics, sciences and social sciences. In addition, basic courses in accounting and economics prepare the student for further work in the School of Business Administration. The junior and senior years emphasize a greater degree of specialization. But even in these last two years all students need to view business as a whole in so far as a "core" of courses can do this. This "core" is required of all students. A total of at least 120 credit hours is required (122 in Accounting) for graduation exclusive of credit received in the required physical education courses. Each course of study leads to the degree of Bachelor of Business Administration.

All students in the School of Business Administration must attain, as a graduation requirement, a 2.0 average in Accounting 125 and 126, Elementary Economic Statistics 121, and the junior "core" courses: Finance 210, Financial Institutions; Finance 201, Corporation Finance; General Business 260, Business Law I; Management 201, Principles of Management; and Marketing 253, Principles of Marketing. The "core" must be completed by the end of the junior year unless a student, on recommendation of his department chairman, has received permission to postpone any such course to the senior year.

Students transferring from any school or college within the University shall receive junior and senior elective credit only for those courses passed with a grade of C or better.

Students transferring from outside the University as juniors or seniors must complete a minimum of 12 credit hours in courses offered by his major department.

Students transferring from junior or community colleges should complete two years of a program in the Liberal Arts including only the one year course in Accounting and in Economics. Students from junior or community colleges who wish credit for completed courses that are offered here on the junior or senior level must pass an examination in each such course conducted by the department concerned.

The School of Business Administration is a member of the American Association of Collegiate Schools of Business.





A class in statistics



One of the School's new lecture halls



Library in the School of Business Administration Building

Major courses of study are available in the School of Business Administration as follows:

ACCOUNTING. The Accounting program is designed to prepare students for public accounting and for positions as accountants in business, industry and government.

GENERAL BUSINESS AND FINANCE. The department has four major programs: *Finance, Business Administration and Economics, General Business, and Urban and Regional Studies.* The curriculum in Finance is directed towards the fields of banking, investment, brokerage, insurance or governmental agencies concerned with finance. The curriculum in Business Administration and Economics comprehends a wider field to balance a knowledge of both economics and business. The curriculum in General Business was designed for students who do not wish to specialize in any particular field. The curriculum in Urban and Regional Studies is an interdisciplinary program directed toward the problems of metropolitan areas.

MANAGEMENT. Industry and business offer qualified students an opportunity to find careers in General Management, Production Management, and in Personnel Management and Industrial Relations. Course programs are offered in each of these fields and provide the student both a specialized and a comprehensive understanding of the managerial process in industrial enterprises.

MARKETING. Students in Marketing prepare for a variety of positions in wholesale and retail enterprises and in the sales activities of manufacturers. The program includes specialized study of basic types of market operations such as advertising, sales management and retailing.

SCHOOL OF EDUCATION

Dwight W. Allen, Dean
School of Education Building

The School of Education through its undergraduate program seeks to utilize the forces of the University to prepare teachers for elementary and secondary schools and through its graduate offering to prepare administrators and specialists in public education. Its program is based upon the assumption that teachers and other school personnel should have a broad liberal education, considerable mastery of at least one field, and professional courses which should lead to a knowledge of the persons to be taught, familiarity with the problems to be met, and practice in the best techniques of teaching and supervision. In all of this the School of Education takes the position that teacher education is a University function and that success will come only if the School is successful in maintaining the closest possible relationships with other schools and departments that contribute to the program.

All students who contemplate teaching as a career should register early, in their freshman year if possible, with the School of Education although their courses in education do not begin until the junior year. In general, students are admitted without question to the various service courses of the junior and senior years, but admission to the teacher-training program of the concentrated semester block is determined by a composite rating based on scholarship as shown by University grades (a three-year average at least as high as the University median is desired), success in the beginning courses in education, recommendations of University teachers in general education fields, and personality ratings by members of the staff.

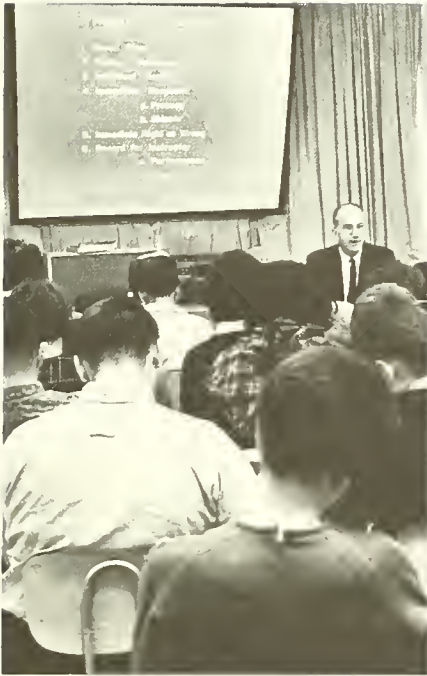
ELEMENTARY SCHOOL TEACHING. Candidates for this program major in elementary education. In certain cases, with the approval of the Dean of the School of Education, the student may be permitted to major in some department of the College of Arts and Sciences where the general education program is deemed the equivalent of that designed for elementary education majors. This permission should be requested in freshman year. Such students will satisfy the requirements of their major department so far as the first two years are concerned but they should utilize their electives to take such courses as Government 100, Zoology 200, History 150, 151 and Art or Music which are recommended by the School of Education. They should take Education 009, 039, 059. The core program for elementary education majors including Education 251 and 264, and Psychology 261 or Home Economics 270, Music 231 and the Elementary Education Block should be taken in the junior and senior years.



Senior majors discuss and evaluate an elementary pupil's reading profile



A junior major acts as a teacher aide in Mark's Meadow Laboratory School



A class in audio-visual aids



Observation classroom in the Mark's Meadow Laboratory School

SECONDARY SCHOOL TEACHING. All candidates for secondary school teaching will major in the subject field to be taught and minor in education. A maximum of eighteen hours should be taken in this minor. Education 251 and Psychology 301 are required during junior year and Education 310, 311, 385 (called the secondary block) in one semester of senior year. Since the concentrated semester block in secondary school teacher-training carries only twelve credits for some majors, students should consult with their major adviser regarding means of making up the extra three credits, and of meeting all their major requirements in the three semesters of junior and senior years.

SPECIAL FIELD PROGRAMS FOR PROSPECTIVE TEACHERS in Vocational Agriculture. This program is based on a cooperative agreement between the University and the Vocational Division of the State Department of Education which provides supervisors and consultants in conducting the program. Students otherwise qualified may prepare to teach vocational agriculture by the satisfactory completion of Education 372, 373, and 375. Education 310 is also recommended. To insure a desirable range of preparation, students who contemplate vocational teaching should consult the Dean early in the freshman year if possible. A vocational teacher-training certificate is awarded by the Vocational Division to those who fully qualify.

In Home Economics (Mrs. Marjorie Sullivan, adviser). These students will major in home economics and minor in education. They should elect Education 251, Psychology 301, Home Economics 381 and the concentrated semester block (Education 311, 385).

In Teacher Coaching (S. W. Kauffman, adviser). These students will major in physical education and minor in education. They should elect Psychology 261 and the concentrated semester block (Education 310, 311, 385). They should elect a minor teaching field from the College of Arts and Sciences consisting of a minimum of eighteen hours.

In Music. These students will major in music and minor in education. They should elect Education 251, Psychology 261, Music 321, and the concentrated semester block (Education 311, 385).

SCHOOL OF ENGINEERING

K. G. Picha, Dean
E. E. Lindsey, Associate Dean
Main Engineering Building



Entrance to the new Engineering Building East

The departments of Chemical Engineering, Civil Engineering, Industrial Engineering, Mechanical Engineering and Electrical Engineering comprise the School of Engineering. Each department offers a curriculum leading to a Bachelor of Science degree in that particular branch. Graduate study leading to advanced engineering degrees is available. All curricula are accredited by the Engineers Council for Professional Development.

Engineering can be defined as the combination of science and art by which materials and power are made useful to mankind. An engineer requires intensive technical training but at the same time he should acquire the broad education that distinguishes the professional man from the technician. His education does not end with formal schooling but continues throughout his life as he accumulates experience.

The curricula in engineering have been carefully prepared to offer each student the opportunity to acquire the sound training in mathematics and the basic sciences of chemistry and physics upon which is built the work in the engineering sciences. In the senior year courses are offered which enable the student to use his previous training for engineering analysis, design and engineering systems in his particular field of interest. About twenty per cent of his time is devoted to studies in the social science and humanistic area. Some opportunity is provided to elect courses from both the technical and humanistic-social fields.

The curriculum of the freshman year is the same for all. Specialization to a limited extent begins in the sophomore year.

CHEMICAL ENGINEERING. Chemical Engineering centers around the creation, development, design and operation of processes for bringing about chemical and certain physical changes in materials. Chemical engineers may be engaged in any of a wide range of activities concerned with converting an idea to a profit. These include research and development, economic and market analysis, design, construction, operation, production supervision, sales, technical service, and management. Basic research for new knowledge, teaching, and consulting also offer challenging and rewarding careers for many chemical engineers. Chemistry, physics and mathematics are the underlying sciences of chemical engineering, and economics is its guide in practice.

Chemical engineers are in demand not only by industries manufacturing chemicals in the narrow sense of the word, but also by all of the many related "chemical process industries", including petroleum refining and petrochemicals, plastics, synthetic fibers and textiles, pulp and paper, drugs and pharmaceuticals, natural and synthetic rubber, foods, soaps and detergents, paints and synthetic coatings, gas and coal chemicals, steel and all the metal manufacturing industries, and many others. Much of the work of the atomic energy program is chemical engineering, and new fields to which chemical engineers are contributing include bio-medical, aerospace, and ocean engineering.

CIVIL ENGINEERING. Civil Engineering is concerned with structures, transportation, movement of fluids, use and storage of water, sanitation, and surveying and mapping. A civil engineer may be engaged in research, in planning and designing, in construction, or in maintenance and operation.

The curriculum gives a thorough training in the fundamental physical sciences and at the same time prepares a student for work in any branch of civil engineering, allowing him to specialize to some extent in whatever branch is most interesting to him — sanitation, mechanics and structures, hydraulics, foundation engineering, highway engineering.

ELECTRICAL ENGINEERING. Electrical Engineering deals with the engineering applications of electricity. Because of its unusual amount of diversity, it is usually convenient to separate it into such main divisions as power, communications, electronics and control, and others.



Industrial Engineering professors review results of computer simulation of industrial systems

The undergraduate curriculum is designed to prepare the student for work in any of these fields and to serve as a basis for further specialization. Courses in liberal arts and in engineering courses outside of the department give the student an understanding of the broader aspects of engineering and other fields.

INDUSTRIAL ENGINEERING. The practice of Industrial Engineering consists of the application of scientific and engineering principles and methods to the problems of industry, government, and other organizational structures. The services of industrial engineers are utilized at all levels of an organization and the problems encountered often involve decisions related to the activities of several departments within an organization. The profession provides an excellent background for management positions.

The course work in the Department of Industrial Engineering covers a wide spectrum of subjects. Included are: motion and time study, productions control, quality control, reliability, plant layout, data processing, and operations research. Studies in operations research include such topics as optimization (mathematical programming), stochastic processes, simulation, decision theory, and game theory.

MECHANICAL AND AEROSPACE ENGINEERING. Students may choose to major in either Mechanical or Aerospace Engineering. Mechanical engineers design and analyze a wide variety of systems in industries such as manufacturing, energy conversion, and transportation. Aerospace engineers design and analyze systems for aerospace such as propulsion, astrodynamical, and vehicular. Both mechanical and aerospace engineers use the principles of dynamics, mechanics, fluid and gas dynamics, heat transfer, materials science, and thermodynamics. The curricula are both fundamental and flexible so that students may prepare for either professional employment or graduate study.



A lecture class in Aerospace Engineering

ENGINEERING SCIENCE OPTION. Engineering Science deals with the application of basic science to research and development in the field of engineering. Extensive courses to develop skill in precise reasoning, analysis, and synthesis. A student may elect the option in one of the five major fields provided his quality point average is either above 2.80 at the end of his freshman and sophomore years, or his cumulative average for the sophomore year is above 3.20.

SCHOOL OF HOME ECONOMICS

Marion A. Niederpruem, Dean
Skinner Hall



Projects in Fashion Merchandising prepare students for careers in this field



Dietetic & Institutional Administration majors study a food preparation center blueprint

Home Economics encompasses areas of study which apply the principles and concepts of fundamental arts and sciences to the physiological, psychological, social and economic environmental needs of man.

The School of Home Economics has five subject matter areas (departments), namely: Nutrition and Food (NF); Textiles, Clothing and Environmental Arts (TCEA); Management and Family Economics (MFE); Human Development (HD); and Home Economics Education (HEEd.). The letters in parenthesis are area codes. Within these five areas the following undergraduate majors are offered:

DIETETICS AND INSTITUTIONAL ADMINISTRATION
FOODS IN BUSINESS
FASHION MERCHANDISING
CHILD DEVELOPMENT
SECONDARY EDUCATION AND EXTENSION

The undergraduate program of the School, leading to a Bachelor of Science degree, emphasizes a liberal education in the sciences, arts and humanities with specialized instruction as preparation for professional careers. The transitional continuing relationships between liberal and professional education seek to develop in the student a disciplined mind, mental curiosity and professional competence.

Professional home economists are college and university graduates with bachelor degrees in Home Economics. They serve individuals, families, and communities through schools and colleges, extension programs, business organizations of many kinds all over the world, community and government organizations and agencies, newspapers, magazines, radio and television. Representative types of activities that Home Economists participate in include teaching, research, writing, dietetics, extension work, interior decoration, fashion merchandising, food consulting, food service management and product development. Experience and advanced study in areas of specialization lead to positions of great responsibility.



Learning experience for student majoring in Child Development

Nutrition and Food

Nutrition and Food curricula provide courses in Nutrition and Food combined with a strong foundation in the Arts and Sciences with two majors: Dietetics and Institutional Administration; and Foods in Business.

DIETETICS AND INSTITUTIONAL ADMINISTRATION. This curriculum prepares the student for positions as therapeutic and administrative dietitians; teaching and research dietitians and nutritionists with public and private agencies. An increasing number of new opportunities continually challenge graduates in this major.



Students and faculty discuss color in Interior Design

Textiles, Clothing and Environmental Arts

The sequence offers opportunities for further work at the graduate level. This program is planned to meet the basic requirements of the American Dietetic Association for admission to approved dietetic internships.

FOODS IN BUSINESS. This curriculum is based on professional training in Nutrition and Food combined with other selected courses in Home Economics, the humanities, Western cultures, social sciences and business. The program is designed for the student who is oriented to the business world, and leads directly into development and promotion with food, equipment and utility industries. Positions are open in the field of communications for the student who combines her knowledge of Food, Nutrition and Equipment with Journalism, English, Speech, Television and Radio. Graduates with a major in this sequence are also placed in advertising and public relations agencies or with a consulting firm. This curriculum allows students to pursue graduate study.

FASHION MERCHANDISING. The retailing and professional opportunities associated with clothing, textiles, home furnishings and related merchandise are limitless. They include positions with manufacturers, producers, retailers, buying organizations, newspapers and magazines, radio and TV and consumer groups, as well as educational institutions and social and government agencies. The student who is interested in the business field pursues, by specializing in this area, a curriculum with a strong program of liberal arts emphasizing the social sciences. Courses which build on this foundation providing professional business competency include fundamentals of clothing, textiles, fashion and environmental arts as well as courses in business, retailing and related subjects. Those students who are particularly interested in Interior Design may follow a slightly different sequence of courses.

Human Development

The area of Human Development is of necessity interdisciplinary in nature. The program brings together knowledge from Psychology, Sociology, Anatomy, Physiology, Nutrition, Education, the Arts, Anthropology, and relates it to Human Development and early childhood education. It is concerned with all maturational and environmental effects upon developing individuals, and with all theoretical and empirical descriptions of how this development occurs.

CHILD DEVELOPMENT. The child development program prepares the student for work in various types of group programs serving pre-school-aged children, such as laboratory, public and private nursery schools, clinics for exceptional children, hospital recreation programs, and community and welfare agencies. In addition, the child development curriculum provides a good background for graduate work in various other child serving professions.

Directed experience with the children of the laboratory nursery school and their families provides the necessary opportunity for students to develop a sound personal philosophy of early childhood education, and to achieve competence in implementing it. More intensive specialization for qualified students may be obtained by the election of a one-semester affiliation with Merrill-Palmer Institute in Detroit, Michigan, which specializes in the study of human development and family life.

Home Economics Education

Home Economics Education offers a curriculum which provides a broad cultural education and preparation for teaching in secondary schools and the extension service.

SECONDARY EDUCATION AND EXTENSION. The School of Home Economics, in cooperation with the School of Education, prepares students for teaching home economics in junior and senior high schools. This curriculum serves also as a base for graduate study in subject matter areas in home economics and home economics education. Students interested in extension service will, with the assistance of an extension adviser, select courses in preparation for continuing education positions in adult and 4-H programs.

SCHOOL OF NURSING

Mary A. Maher, Dean
Mary E. MacDonald, Associate Dean

Western Massachusetts
Public Health Center

The undergraduate nursing program is designed to prepare the qualified high school graduate for a career in professional nursing, as well as for the responsibilities of family and community life.

In nursing, a profession of personal service, people are the focus and promoting health is the fundamental aim. The professional nurse provides a direct and unique service to individuals and families, and, in addition, participates in the provision of the unique services with other health disciplines. The baccalaureate program in nursing provides opportunities for the student to gain a body of knowledge, skill and understanding appropriate to the practice of professional nursing. The scope of these learnings and the degree of skill in their application are such that individuals are enabled upon completion of the program to function effectively in beginning positions in a variety of nursing situations. These include the ability to provide competent nursing care to patients and families in the hospital, home and community; to participate with allied professional and citizen groups for the improvement of total health services to individuals and communities; to participate in organizing, planning and directing the work of nursing technicians and assistants. The baccalaureate program provides learnings which are foundational to graduate study in nursing and other disciplines, through which the nurse may become prepared for positions in a clinical specialty, teaching, supervision, administration, consultation and research.



Participating members of a hospital nursing team



Mother-infant relationships are taught in a maternity hospital Mother-Baby unit



Work in the Physiology Laboratory is an essential foundation for Nursing



Clinical experience with children in a hospital unit



Promotion of health is part of the community nursing experience

Competence in professional nursing requires a comprehension of and the ability to apply scientific principles and techniques from the physical, biological and behavioral sciences and a capacity to become therapeutically involved in a variety of human situations. Toward this end, the program provides a solid foundation in the liberal arts. Baccalaureate nursing students share the intellectual and social stimulation of college with their fellow students from all other departments of the University. Nursing courses are major subjects within this general context. The program provides the opportunity to develop individual interests and potentialities through elected and independent study.

With the use of a systematic problem-solving approach, the student learns to identify nursing problems, select and develop appropriate nursing intervention and evaluate nursing care in a variety of clinical and community settings. The clinical aspects of the program are concentrated in the junior and senior years, when instruction and a correlated practicum are offered each semester under the guidance and supervision of the nursing faculty of the University. Clinical programming is accomplished through the utilization of the resources of the following cooperating agencies: the Springfield, Wesson Memorial and Wesson Maternity Hospitals in Springfield; the Northampton State Hospital; the Visiting Nurse Association of Springfield; the Springfield Health Department; and other community health, educational and welfare services.

The Bachelor of Science degree, awarded upon completion of this program, qualifies the graduate for admission to the State Board Examination in Nursing. If achievement in these examinations is satisfactory, the candidate receives legal status as a registered nurse within the state and the legal right to practice as a professional nurse.

The Graduate Program in Medical and Surgical Nursing is designed to prepare qualified graduates of a baccalaureate nursing program for positions of leadership in nursing activities related to this clinical field. It is anticipated that graduates will exert leadership through teaching, administrative processes, consultation and research activities. To each of these, the graduate will bring a special background of knowledge pertinent to providing highly skilled and effective nursing care. To meet this goal the student has an opportunity to gain more scientific and clinical knowledge, to use such knowledge in determining or clarifying the nature of nursing intervention, to develop techniques of communication and problem-solving to the degree that is required in highly complex social situations. In addition, the student has the opportunity to study the theory and practice relevant to bringing about change through teaching or administrative processes.

The program is accredited by the Massachusetts Board of Registration in Nursing and the Accrediting Service of the National League for Nursing.

SCHOOL OF PHYSICAL EDUCATION

Warren P. McGuirk, Dean
David C. Bischoff, Associate Dean

Frank L. Boyden
Physical Education Building



Fencing



Tennis

The School of Physical Education includes the Departments of Physical Education for Men, Physical Education for Women, Recreation, and Athletics. It offers undergraduate majors in Physical Education and in Recreation and a graduate degree in Physical Education.

Physical Education for Men

GENERAL PROGRAM. Each male freshman and sophomore student, unless exempted under certain conditions, must successfully complete four semesters of physical education and demonstrate his ability to swim as a requirement for his degree. The physical education requirement does not apply to those students excused by the University physician, veterans of more than six months of military service, and certain transfer students.

Students may receive credit for physical education, during the sport in season by becoming squad members of any freshman or varsity team. Freshmen who elect an athletic team sport for physical education credit must rejoin their class sections at the termination of the seasonal sport. Students may not participate in a given sport for credit for more than two semesters.

MAJOR PROGRAM. The major program leading to the degree of Bachelor of Science in physical education is designed to train the student for a career as a teacher of physical education. The curriculum combines both general and professional education and provides for full teacher certification for the student who has met the prescribed requirements of preparation. The program also provides for adequate training in a minor area of teaching, elected by the student, including the coaching of inter-school athletics.

Physical Education for Women

GENERAL PROGRAM. Physical Education is required of all women students during their freshman and sophomore years. The courses are planned to provide recreative activity, to improve individual skills, to develop body grace and efficiency and to increase health and vigor.

The first and second year women students are required to take three class hours a week for a total of eight credits, one for each quarter of satisfactory work.

MAJOR PROGRAM. The major course in physical education is planned to prepare women students for professional careers. Special attention is given to preparing teachers for elementary and secondary schools in both physical and health education. Other areas for which the graduate will qualify are teaching sports and dance in social agencies, industrial plants, civic centers and camps. A foundation will be laid for specialization in graduate study.

The curriculum gives a broad general background as well as the professional preparation.



Wrestling practice



Diving

Recreation

MAJOR PROGRAM. The professional in recreation is a diagnostician of the leisure needs of people and a developer and provider of opportunities to meet these needs. He or she works primarily at the executive, administrative and supervisory levels, although a few settings involve more direct program leadership.

Options are available leading to a variety of careers in: voluntary youth-serving organizations, college unions, military establishments, municipal and other governmental agencies, and commercial and other institutions and agencies dealing with the ill, the handicapped, and other types of dependents. An option is also available in environmental interpretation.

In addition to completing the curriculum as described below, the student is required to:

- (1) devote one summer (minimum of six weeks) to a recreation position, preferably with pay, in a camp, playground, or similar setting approved by the department.
- (2) have completed a Red Cross advanced course in first aid, or equivalent.
- (3) demonstrate proficiency in at least one program area.

Intercollegiate and Intramural Athletics

The University supports the department's belief that there are educational advantages in a well-organized intercollegiate and intramural sports program. In intercollegiate athletics, the University is represented by teams in all the leading sports, including football, soccer, cross-country, basketball, swimming, wrestling, indoor and outdoor track, hockey, rifle and pistol, baseball, tennis, golf, lacrosse, gymnastics, and skiing.

The Athletic Department also supports a broad program of intramural activities, in which all students are encouraged to participate. The range of sports available each year includes the team sports of touch football, basketball, softball, bowling, volleyball and soccer. Individual activities include badminton, golf, squash, handball, cross-country, wrestling, swimming, and tennis.

The University Intercollegiate Athletic Program is supervised by the University Athletic Council and is composed of the following members: five faculty members appointed by the President, three alumni representatives appointed by the Directors of the Alumni Association, the Executive Director of the Alumni Association, the President of the Student Senate and *ex officio*, the Director of Athletics.

The University of Massachusetts is a member of the Yankee Conference, the National Collegiate Athletic Association, the Eastern College Athletic Conference, the Association of New England Colleges for Conference on Athletics, and the National Collegiate Athletic Association.

DEPARTMENT OF PUBLIC HEALTH

Robert W. Gage, *Chairman*
Public Health Center



A Medical Technologist prepares to inject a guinea pig for diagnostic study



Faculty-student discussion in Community Health Analysis forms a basis for research into community health behavior patterns

The Department of Public Health offers undergraduate instruction in the area of environmental health, community health and health education, and medical technology. The department also offers a graduate program leading to the Master of Science degree.

ENVIRONMENTAL HEALTH (PUBLIC HEALTH OPTION I). This curriculum is designed to prepare for career opportunities or further study of environmental health sciences requiring specific technical knowledge and competence. In addition to the classical environmental health problems, first level professional technical competence in the area of atmospheric health, radiation hazards, occupational health programs, air hygiene, and water pollution and quality are also an aim of this curriculum.

COMMUNITY HEALTH AND HEALTH EDUCATION (PUBLIC HEALTH OPTION II). This curriculum is designed to prepare for first level career opportunities or for further study in community health and health education. At the baccalaureate level, the desire is to develop limited professional competence in the area of community health analysis, program planning and development, community health education, and public health analysis and administrative matters.

NOTE: Each of the above options is designed to provide a sound basic academic preparation in the natural and social sciences upon which students may acquire further academic and/or professional preparation at the graduate level.

MEDICAL TECHNOLOGY. The curriculum in medical technology is recommended for young men and women in preparation for a wide variety of opportunities. Medical technology prepares for positions in medical laboratories, in Federal, state, and local health departments, and in commercial and research laboratories. There are two possibilities for arrangement of the curriculum; students may complete the full four years of undergraduate instruction and, after receiving their baccalaureate degree, enter a 12-month internship in an approved hospital laboratory, or follow an optional three-year program which allows the student to obtain the baccalaureate degree and complete the requirements for examination for registration in a total of four years. The fourth year of study is taken in one of the hospitals affiliating with this department and approved for clinical laboratory training. A student will have gained sufficient credits for graduation under this program.

DIVISION OF MILITARY AND AIR SCIENCE

The Division of Military and Air Science includes the Department of Military Science and the Department of Air Science. No major is offered in either department. Male students who are physically qualified may register in the two-year basic ROTC course and receive credit toward graduation. Completion of the basic course, which is voluntary, is a requirement for enrollment in the advanced course, which leads to a commission in the armed forces.



University Air Cadet is given a pre-flight briefing on the F-106



University Bay State Special Forces make preparations for a training exercise

DEPARTMENT OF MILITARY SCIENCE (GMS)

Joseph A. Bohnak, Colonel, U. S. Army, *Head*
Dickinson Hall

The Army Reserve Officers Training Corps is the means by which young men may assure themselves that their military service is performed in commissioned status. The first two years are basic training in leadership and citizenship. The student is informed on the position of the military in the current scene and as it relates to his future. The second two years of ROTC are elective and selective. The Army provides the selected students a subsistence allowance of \$50 a month and additional emoluments. There is a six-week summer camp training period between the junior and senior year. Participation in ROTC has notable effect in character and leadership development. Successful completion of this program leads to a commission as a Second Lieutenant, U.S. Army. Active duty requirements are, at the present time, two years' service with an active Army unit.

A two-year program, which substitutes an additional six-week summer camp for the basic course, is offered to transfer students and others unable to take the basic course. ROTC scholarships are also available to members of the advanced course.

DEPARTMENT OF AIR SCIENCE

David L. Oakes, Major, USAF, *Head*
Dickinson Hall

The purpose of the Department of Air Science is to commission Second Lieutenants in the United States Air Force. The objectives of this ROTC program are to identify and select those individuals who display the necessary qualities for commissioning and to develop their potential as leaders.

A four-year and a competitive two-year program are offered, both of which develop an understanding of Air Force officer professionalism and an understanding of how the United States Air Force serves the national interest. If the required curriculum is completed, an individual is qualified for a Reserve Commission or, if meeting the higher requirements, a Regular Commission.

The first two years of the four-year program are designed to acquaint the student with aerospace power as employed in military systems. The last two years of the four-year program and the entire two-year program are designed primarily to enhance the professional knowledge and leadership capabilities of those individuals selected for officer training. A summer training course is required for both the four-year (four weeks) and the two-year (six weeks) program.

During the last two years of the program, a cadet receives a retainer fee of \$40 a month. Those individuals selected for scholarships (four-year program only) will receive a retainer fee of \$50 a month and payment of tuition, laboratory fees, and textbook expenses.

COURSE REQUIREMENTS IN THE FRESHMAN YEAR

The following listings are designed to give prospective students a complete schedule of the courses required in the **FRESHMAN YEAR** in all colleges and schools of the University.

Note: Courses in Military & Air Science, although listed among the programs below, are elective offerings and are not required for graduation.

COLLEGE OF AGRICULTURE

1st Semester	Credits
ENGLISH 111	2
SPEECH 101*	2
MATHEMATICS	3
CHEMISTRY 111	3
BOTANY 100	3
MILITARY OR AIR SCIENCE 111 (MEN)	1
AGRICULTURAL AND FOOD ECONOMICS 110	2
PHYSICAL ED. 001A, B	0

2nd Semester	Credits
ENGLISH 112	2
SPEECH 101*	2
MATHEMATICS	3
CHEMISTRY 112	3
ZOOLOGY 101	3
ELECTIVE ¹	3
MILITARY OR AIR SCIENCE 112 (MEN)	1
PHYSICAL ED. 002A, B	0

¹A foreign language may be substituted for the Agricultural and Food Economics-elective sequence.

*May be taken either semester or during a later year

Freshmen majoring in Agricultural Engineering take the program listed under the School of Engineering. Freshmen majoring in Landscape Architecture will take Government 125 in place of Zoology 101, Art 100 in place of Food Economics 110, and Sociology in place of Chemistry 112. Majors in Restaurant and Hotel Management take Restaurant and Hotel Management 100 in place of Botany 100, and Microbiology 150 in place of Zoology 101. Majors in Veterinary and Animal Science take Animal Science 121 in place of Food Economics 110.

COLLEGE OF ARTS AND SCIENCES

SCIENCE MAJOR—Typical Freshman Year	Credits
ENGLISH 111, 112	4
SPEECH 101	2
MATHEMATICS	6
FOREIGN LANGUAGE	6
PHYSICAL SCIENCE	6
BIOLOGICAL SCIENCE	6
MILITARY OR AIR SCIENCE (Optional for Men)	2
PHYSICAL EDUCATION	0

NON-SCIENCE MAJOR—Typical Freshman Year	Credits
ENGLISH 111, 112	4
SPEECH 101	2
FOREIGN LANGUAGE	6
HISTORY 100, 101	6
MATHEMATICS OR SCIENCE	6
ELECTIVES*	6
MILITARY OR AIR SCIENCE (Optional for Men)	2
PHYSICAL EDUCATION	0

*The elective each semester is frequently an introductory course in the prospective major; in case the introductory course in the prospective major is already listed, this becomes a free elective.

SCHOOL OF BUSINESS ADMINISTRATION

In each subject a one-year sequence is required.

1st Semester	Credits
ENGLISH 111	2
SPEECH 101*	2
MATHEMATICS III	3-4
HIST. 100, 150, OR GOVT. 100	3
SCIENCE: ELECT ONE	3
CHEMISTRY 111, PHYSICS 103, BOTANY 100, GEOLOGY 101, ZOOLOGY 101	
ELECTIVE	3
MILITARY OR AIR SCIENCE 111 (MEN)	1
PHYSICAL ED. 001A, B	0

2nd Semester	Credits
ENGLISH 112	2
SPEECH 101*	2
MATHEMATICS 112	3-4
HIST. 101, 151, OR GOVT. 150	3
SCIENCE: ELECT ONE	3
CHEMISTRY 112, PHYSICS 104, BOTANY 125, GEOLOGY 102, ZOOLOGY 125 AND 135	
ELECTIVE	3
MILITARY OR AIR SCIENCE 112 (MEN)	1
PHYSICAL ED. 002A, B	0

*May be taken either semester.

SCHOOL OF EDUCATION

1st Semester	Credits
ENGLISH 111	2
SPEECH 101*	2
MATHEMATICS 111 OR CHEMISTRY 111	3
ZOOLOGY 101 OR BOTANY 101	3
FOREIGN LANGUAGE**	3
HISTORY 100	3
EDUCATION 009†	0
MILITARY OR AIR SCIENCE 111 (MEN)	1
PHYSICAL ED. 001A, B	0

2nd Semester	Credits
ENGLISH 112	2
SPEECH 101*	2
MATHEMATICS 151 OR 202 OR CHEMISTRY 112	3
BOTANY 101 OR ZOOLOGY 101	3
FOREIGN LANGUAGE**	3
HISTORY 101	3
EDUCATION 009†	0
MILITARY OR AIR SCIENCE 112 (MEN)	1
PHYSICAL ED. 002A, B	0

*May be taken either semester.

**Intermediate Proficiency Required.

†To be completed in a school year.

SCHOOL OF ENGINEERING

1st Semester	Credits
ENGLISH 111, COMPOSITION	2
SPEECH 101, PUBLIC SPEAKING	2
MATH. 135, CALCULUS	3
CHEM. 111 OR 113, GENERAL*	3-4
ENGINEERING 103, GRAPHICS	3
SOCIAL SCIENCE ELECTIVE	3
MILITARY OR AIR SCIENCE 111**	1
PHYSICAL ED. 001A, B	0

2nd Semester	Credits
ENGLISH 112, COMPOSITION	2
MATH. 136, CALCULUS	3
CHEM. 112 OR 114, GENERAL*	3-4
ENGINEERING 104, PROBLEMS	2
PHYSICS 105, GENERAL	3
SOCIAL SCIENCE ELECTIVE	3
MILITARY OR AIR SCIENCE 112**	1
PHYSICAL ED. 002A, B	0

*It is recommended that Chemical Engineering majors take Chemistry 113 and 114 in place of Chemistry 111 and 112

**Military or Air Science is optional



SCHOOL OF HOME ECONOMICS

Key: NF — Nutrition and Food
TCEA — Textiles, Clothing and Environmental Arts
HEEd. — Home Economics Education
HD — Human Development

MAJOR IN DIETETICS AND INSTITUTIONAL ADMINISTRATION — (NF)

1st Semester	Credits
ENGLISH 111, COMPOSITION	2
CHEMISTRY 111, GENERAL	3
HEEd. 120, INTRODUCTION TO HOME ECONOMICS	1
NF 127, MAN AND NUTRITION	3
SOCIOLOGY 101, INTRODUCTORY	3
HISTORY, GOVERNMENT OR MATH	3
PHYSICAL EDUCATION	0

2nd Semester	Credits
ENGLISH 112, COMPOSITION	2
SPEECH 101, ORAL COMMUNICATION	2
CHEMISTRY 112, GENERAL	3
ZOOLOGY 101, INTRODUCTORY	3
PSYCHOLOGY 101, GENERAL	3
NF 130, MEAL MANAGEMENT	3
PHYSICAL EDUCATION	0

MAJOR IN FOODS IN BUSINESS — (NF)

1st Semester	Credits
ENGLISH 111, COMPOSITION	2
SPEECH 101, ORAL COMMUNICATION	2
SOCIOLOGY 101, INTRODUCTORY	3
CHEMISTRY 111, GENERAL	3
NF 127, MAN AND NUTRITION	3
HEEd. 120, INTRODUCTION TO HOME ECONOMICS	1
PHYSICAL EDUCATION	0

2nd Semester	Credits
ENGLISH 112, COMPOSITION	2
PSYCHOLOGY 101, GENERAL	3
CHEMISTRY 112, GENERAL	3
ZOOLOGY 101, INTRODUCTORY	3
NF 130, MEAL MANAGEMENT	3
ART 120, PHILOSOPHY 105, 125, 110, 243, OR MUSIC 101	3
PHYSICAL EDUCATION	0

MAJOR IN FASHION MERCHANDISING — (TCEA)

1st Semester	Credits
ENGLISH 111, COMPOSITION	2
SCIENCE OR MATH	3
SOCIOLOGY 101, INTRODUCTORY	3
LANGUAGE	3
HEEd. 120, INTRODUCTION TO HOME ECONOMICS	1
TCEA 123, ART FOR LIVING	3
PHYSICAL EDUCATION	0

2nd Semester	Credits
ENGLISH 112, COMPOSITION	2
SCIENCE OR MATH	3
PSYCHOLOGY 101, GENERAL	3
LANGUAGE	3
NF 127, MAN AND NUTRITION	3
TCEA 124, TEXTILES I	3
PHYSICAL EDUCATION	0

MAJOR IN HOME ECONOMICS EDUCATION — (HEEd.)

1st Semester	Credits
ENGLISH 111, COMPOSITION	2
CHEMISTRY 101 OR 111, GENERAL	3
NF 127, MAN AND NUTRITION	3
SOCIOLOGY 101, INTRODUCTORY	3
HISTORY 150 or 151, AMERICAN	3
HEEd. 120, INTRODUCTION TO HOME ECONOMICS	1
PHYSICAL EDUCATION	0

2nd Semester	Credits
ENGLISH 112, COMPOSITION	2
SPEECH 101, ORAL COMMUNICATION	2
PSYCHOLOGY 101, GENERAL	3
CHEMISTRY 102 OR 112, GENERAL	3
NF 130, MEAL MANAGEMENT	3
TCEA 123, ART FOR LIVING	3
PHYSICAL EDUCATION	0

MAJOR IN CHILD DEVELOPMENT — (HD)

1st Semester	Credits
ENGLISH 111, COMPOSITION	2
FOREIGN LANGUAGE	3
PSYCHOLOGY 101, GENERAL	3
NF 127, MAN AND NUTRITION	3
ZOOLOGY 101, INTRODUCTORY	3
HEEd. 120, INTRODUCTION TO HOME ECONOMICS	1
PHYSICAL EDUCATION	0

2nd Semester	Credits
ENGLISH 112, COMPOSITION	2
SPEECH 101, ORAL COMMUNICATION	2
FOREIGN LANGUAGE	3
SOCIOLOGY 101, INTRODUCTORY	3
TCEA 123, ART FOR LIVING, OR MFE 250, FAMILY MANAGEMENT AND DECISION MAKING	3
PHILOSOPHY 105, 125, 110, 161, OR 243	3
PHYSICAL EDUCATION	0



SCHOOL OF NURSING

1st Semester

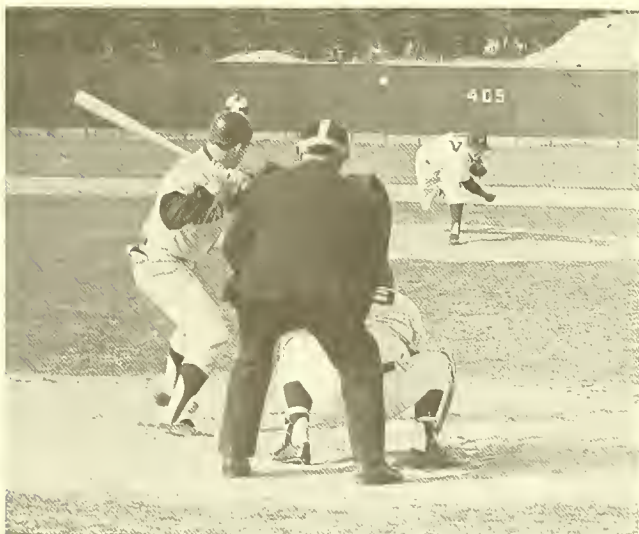
ENGLISH 111, ENGLISH COMPOSITION	2
CHEMISTRY 111, GENERAL	3
PSYCHOLOGY 101, GENERAL	3
SOCIOLOGY 101, INTRODUCTION	3
ELECTIVE*	3
SPEECH 101**, ORAL COMMUNICATION	2
PHYSICAL ED. 001A, B	0

2nd Semester

ENGLISH 112, ENGLISH COMPOSITION	2
CHEMISTRY 112, GENERAL	3
ZOOLOGY 101, INTRODUCTORY	3
ELECTIVE*	3
SPEECH 101**, ORAL COMMUNICATION	2
NURSING 100, INTRODUCTION	3
PHYSICAL ED. 002A, B	0

*Elective chosen from: History, Government or Economics. Students who wish to elect a foreign language may do so providing the basic requirement of six elective credits in the social sciences is fulfilled. If a language is elected, intermediate proficiency is required.

**May be taken either semester.



SCHOOL OF PHYSICAL EDUCATION

PHYSICAL EDUCATION FOR MEN

1st Semester

ENGLISH 111, COMPOSITION	2
HUMANITIES, ELECTIVE	3
PE 121 INTRO. TO PHYS. ED.	3
PE 123 PRINC. OF HEALTH ED.	3
PE 105 SKILLS & TECHNIQUES (LACROSSE — GYMNASTICS)	1

Elect One

CHEMISTRY 111	3
BOTANY 100	3
ZOOLOGY 101	3

2nd Semester

ENGLISH 112, COMPOSITION	2
SPEECH 101, COMMUNICATION	2
SOCIAL SCIENCE ELECTIVE	3
PE 122 FIRST AID & SAFETY	3
PE 106 SKILLS & TECHNIQUES (GYM — BADMINTON — VOLLEYBALL)	1

Elect One

CHEMISTRY 112	3
BOTANY 100	3
ZOOLOGY 101	3

PHYSICAL EDUCATION FOR WOMEN

1st Semester

ENGLISH 111, COMPOSITION	2
HISTORY 100, MOD. EUROP. CIVIL.	3
PSYCH. 101, GENERAL	3
WPE 110, HEALTH FOR ADULTS	2
WPE 105, INTRO. TO PHYSICAL EDUCATION	2
WPE 111, SKILLS	1
ELECTIVE	3

2nd Semester

ENGLISH 112, COMPOSITION	2
SPEECH 101, COMMUNICATION	2
HISTORY 101, MODERN EUROP. CIVIL.	3
ZOOLOGY 101, INTRODUCTORY	3
WPE 106, INTRODUCTION TO THE CHILD THROUGH PHYSICAL EDUCATION	2
WPE 112, SKILLS	1
ELECTIVE	3

Chemistry 111 and 112 are required if students have not had chemistry in high school. Others may select from chemistry, physics, microbiology or foreign language.

RECREATION

1st Semester

ENGLISH 111, COMPOSITION	2
SPEECH 101	2
BOTANY 100, INTRO. BOTANY	3
GOVT. 100, AMERICAN GOVT.	3
HUMANITIES ELECTIVE	3
REC. 101, INTRO. TO REC.	3
GEN. PHYS. ED. 001A, B	0
MILITARY OR AIR SCIENCE 111 (MEN)	1

2nd Semester

ENGLISH 112, COMPOSITION	2
STATISTICS 121	3
ZOOL. 101, INTRO. ZOOL.	3
SOC. 101, INTRO. TO SOC.	3
MPE 122, FIRST AID & SAFETY	3
REC. 111, SOC. REC.	2
GEN. PHYS. ED. 002A, B	0
MILITARY OR AIR SCIENCE 112 (MEN)	1

DEPARTMENT OF PUBLIC HEALTH

ENVIRONMENTAL HEALTH (OPTION 1) AND COMMUNITY HEALTH EDUCATION (OPTION 11)

1st Semester	Credits
ENGLISH 111	2
SPEECH 101*	2
MATHEMATICS 111 OR 123**	3
CHEMISTRY 111	3
ZOOLOGY 101	3
PSYCHOLOGY OR SOCIOLOGY 101	3
ELECTIVE (OPTION II ONLY)***	3

2nd Semester	Credits
ENGLISH 112	2
SPEECH 101*	2
MATHEMATICS 112 OR 124**	3
CHEMISTRY 112	3
ZOOLOGY 135 (OPTION I ONLY)	3
PHYSICAL EDUCATION 002A, B	0
ELECTIVE (OPTION II ONLY)***	3

*May be taken either semester.

**On basis of placement tests and interest in advanced science

***If a language is elected, intermediate proficiency is required

MEDICAL TECHNOLOGY

1st Semester	Credits
ENGLISH 111	2
SPEECH 101*	2
MATHEMATICS 111	3
ZOOLOGY 101	3
CHEMISTRY 111	3
FOREIGN LANGUAGE** OR ELECTIVE (SOCIAL SCIENCE)***	3
PHYSICAL EDUCATION 001A, B	0

2nd Semester	Credits
ENGLISH 112	2
SPEECH 101*	2
MATHEMATICS 112 (OR 123)	3
ZOOLOGY 145	3
CHEMISTRY 112	3
FOREIGN LANGUAGE** OR ELECTIVE (SOCIAL SCIENCE)***	3
MEDICAL TECHNOLOGY 101	1
PHYSICAL EDUCATION 002A, B	0

*May be taken either semester

**If foreign language is elected, intermediate proficiency is required

***Minimum of 9 credits in social science and minimum of 3 credits in humanities.

DIVISION OF MILITARY AND AIR SCIENCE

DEPARTMENT OF MILITARY SCIENCE (GMS)

1st Semester	Credits
MS 111 INTRO TO MIL SCIENCE	1

2nd Semester	Credits
MS 112 INTRO TO MIL SCIENCE	1

DEPARTMENT OF AIR SCIENCE

1st Semester	Credits
AS 111 FUNDAMENTALS OF MIL SYSTEMS I	1

2nd Semester	Credits
AS 112 FUNDAMENTALS OF MIL SYSTEMS II	1

UNIVERSITY OF MASSACHUSETTS AMHERST CAMPUS

ACADEMIC AFFAIRS

Oswald Tippo, *Provost*

ADMISSIONS

AMHERST:

William D. Tunis, *Dean of Admissions and Records*

BOSTON:

Director of Admissions Center

COUNSELING AND GUIDANCE SERVICES

J. Alfred Southworth, *Director*

EXPENSES, PAYMENTS

Kenneth W. Johnson, *Treasurer*

HEALTH SERVICES

Dr. Robert W. Gage, *Director*

HOUSING

John C. Welles, *Director*

PLACEMENT AND FINANCIAL AID SERVICES

(Loans & Scholarships) Robert J. Morrissey, *Director*

ACADEMIC RECORDS AND TRANSCRIPTS

William C. Starkweather, *Registrar*

STOCKBRIDGE SCHOOL OF AGRICULTURE

Fred P. Jeffrey, *Director*

STUDENT AFFAIRS

William F. Field, *Dean of Students*

SUMMER SESSION

William C. Venman, *Director*

VETERANS-SELECTIVE SERVICE LIAISON

George E. Emery

All correspondence concerning the Amherst Campus should be addressed to the appropriate office, University of Massachusetts, Amherst, Massachusetts 01002

All correspondence concerning the University of Massachusetts/Boston should be addressed to 100 Arlington Street, Boston, Massachusetts 02116.

UNIVERSITY OF MASSACHUSETTS GENERAL INFORMATION BULLETIN